

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	01	01	40	17		0.00		0.0		0.0								
2017	01	02	40	25		0.11		0.0		0.0								
2017	01	03	39	19		T		0.0		0.0								
2017	01	04	19	7		0.00		0.0		0.0								
2017	01	05	13	3		T		T		0.0								
2017	01	06	9	0		T		T		0.0								
2017	01	07	18	0		0.00		0.0		0.0								
2017	01	08	19	2		0.00		0.0		0.0								
2017	01	09	33	19		0.02		0.2		0.0								
2017	01	10	51	25		0.20		0.0		0.0								
2017	01	11	43	25		0.33		0.0		0.0								
2017	01	12	28	19		0.05		0.2		0.0								
2017	01	13	27	16		0.00		0.0		0.0								
2017	01	14	35	21		0.00		0.0		0.0								
2017	01	15	36	20		0.00		0.0		0.0								
2017	01	16	37	30		0.90		T		0.0								
2017	01	17	39	35		0.48		0.0		0.0								
2017	01	18	36	30		T		0.0		0.0								
2017	01	19	42	30		0.46		0.0		0.0								
2017	01	20	43	38		0.18		0.0		0.0								
2017	01	21	59	40		T		0.0		0.0								
2017	01	22	46	38		0.01		0.0		0.0								
2017	01	23	42	36		0.00		0.0		0.0								
2017	01	24	38	34		T		0.0		0.0								
2017	01	25	42	34		0.09		T		0.0								
2017	01	26	34	30		T		T		0.0								
2017	01	27	31	24		T		T		0.0								
2017	01	28	29	24		T		T		0.0								
2017	01	29	28	21		T		0.1		0.0								
2017	01	30	37	15		0.01		0.1		0.0								
2017	01	31	39	35		0.03		0.0		0.0								
Summary			35	23		2.87		0.6										

Empty, or blank, cells indicate that a data observation was not reported.

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"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	02	01	38	21		T		T		0.0								
2017	02	02	24	14		0.00		0.0		0.0								
2017	02	03	28	14		0.00		0.0		0.0								
2017	02	04	33	10		0.00		0.0		0.0								
2017	02	05	38	24		0.00		0.0		0.0								
2017	02	06	55	21		T		0.0		0.0								
2017	02	07	50	32		0.47		0.0		0.0								
2017	02	08	32	19		0.00		0.0		0.0								
2017	02	09	25	13		0.00		0.0		0.0								
2017	02	10	41	18		0.00		0.0		0.0								
2017	02	11	49	34		0.00		0.0		0.0								
2017	02	12	47	31		T		0.0		0.0								
2017	02	13	44	25		0.00		0.0		0.0								
2017	02	14	50	31		0.00		0.0		0.0								
2017	02	15	35	26		0.00		0.0		0.0								
2017	02	16	41	30		0.00		0.0		0.0								
2017	02	17	67	27		0.00		0.0		0.0								
2017	02	18	70	40		0.00		0.0		0.0								
2017	02	19	69	35		0.00		0.0		0.0								
2017	02	20	70	41		0.00		0.0		0.0								
2017	02	21	66	49		0.04		0.0		0.0								
2017	02	22	68	50		0.00		0.0		0.0								
2017	02	23	59	38		0.21		0.0		0.0								
2017	02	24	40	33		0.15		0.0		0.0								
2017	02	25	33	23		T		T		0.0								
2017	02	26	49	21		T		0.0		0.0								
2017	02	27	54	27		0.00		0.0		0.0								
2017	02	28	60	47		0.65		0.0		0.0								
Summary			48	28		1.52		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	03	01	54	32		0.12		T		0.0								
2017	03	02	35	27		T		T		0.0								
2017	03	03	33	21		0.00		0.0		0.0								
2017	03	04	42	28		0.01		0.1		0.0								
2017	03	05	60	32		0.00		0.0		0.0								
2017	03	06	65	52		T		0.0		0.0								
2017	03	07	65	44		0.24		0.0		0.0								
2017	03	08	53	40		0.00		0.0		0.0								
2017	03	09	42	29		0.00		0.0		0.0								
2017	03	10	36	23		0.00		0.0		0.0								
2017	03	11	32	18		0.00		0.0		0.0								
2017	03	12	36	18		0.05		0.4		0.0								
2017	03	13	31	27		0.24		3.9		2.0								
2017	03	14	28	19		0.19		3.4		5.9								
2017	03	15	33	16		0.00		0.0		2.0								
2017	03	16	42	18		0.00		0.0		1.2								
2017	03	17	50	36		0.03		T		0.0								
2017	03	18	45	32		0.00		0.0		0.0								
2017	03	19	53	29		0.00		0.0		0.0								
2017	03	20	54	37		0.13		0.0		0.0								
2017	03	21	54	33		0.00		0.0		0.0								
2017	03	22	37	28		0.00		0.0		0.0								
2017	03	23	50	29		0.02		0.0		0.0								
2017	03	24	82	42		T		0.0		0.0								
2017	03	25	47	41		0.71		0.0		0.0								
2017	03	26	62	47		0.30		0.0		0.0								
2017	03	27	52	42		T		0.0		0.0								
2017	03	28	50	36		0.00		0.0		0.0								
2017	03	29	49	35		0.11		0.0		0.0								
2017	03	30	45	39		1.84		0.0		0.0								
2017	03	31	44	36		0.02		0.0		0.0								
Summary			47	32		4.01		7.8										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	04	01	59	34		0.00		0.0		0.0								
2017	04	02	61	42		T		0.0		0.0								
2017	04	03	54	46		0.19		0.0		0.0								
2017	04	04	56	43		0.02		0.0		0.0								
2017	04	05	47	40		1.04		0.0		0.0								
2017	04	06	51	38		0.29		0.0		0.0								
2017	04	07	54	37		0.00		0.0		0.0								
2017	04	08	68	37		0.00		0.0		0.0								
2017	04	09	77	57		0.00		0.0		0.0								
2017	04	10	78	41		0.32		0.0		0.0								
2017	04	11	54	41		T		0.0		0.0								
2017	04	12	59	38		0.00		0.0		0.0								
2017	04	13	60	44		0.19		0.0		0.0								
2017	04	14	66	47		0.06		0.0		0.0								
2017	04	15	82	61		0.09		0.0		0.0								
2017	04	16	73	52		0.59		0.0		0.0								
2017	04	17	69	44		0.00		0.0		0.0								
2017	04	18	76	41		0.00		0.0		0.0								
2017	04	19	70	45		0.01		0.0		0.0								
2017	04	20	73	48		T		0.0		0.0								
2017	04	21	53	44		0.00		0.0		0.0								
2017	04	22	60	38		0.00		0.0		0.0								
2017	04	23	72	37		0.00		0.0		0.0								
2017	04	24	73	40		0.00		0.0		0.0								
2017	04	25	79	52		0.00		0.0		0.0								
2017	04	26	74	60		0.22		0.0		0.0								
2017	04	27	62	41		0.14		0.0		0.0								
2017	04	28	60	40		T		0.0		0.0								
2017	04	29	46	40		1.95		0.0		0.0								
2017	04	30	47	42		1.32		0.0		0.0								
Summary			64	44		6.43		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	05	01	57	45		0.09		0.0		0.0								
2017	05	02	51	41		0.01		0.0		0.0								
2017	05	03	56	35		0.00		0.0		0.0								
2017	05	04	54	43		0.00		0.0		0.0								
2017	05	05	61	41		T		0.0		0.0								
2017	05	06	58	44		0.11		0.0		0.0								
2017	05	07	59	36		0.00		0.0		0.0								
2017	05	08	57	34		0.02		0.0		0.0								
2017	05	09	61	42		0.13		0.0		0.0								
2017	05	10	67	44		0.87		0.0		0.0								
2017	05	11	65	49		T		0.0		0.0								
2017	05	12	73	45		0.00		0.0		0.0								
2017	05	13	82	47		0.00		0.0		0.0								
2017	05	14	71	51		0.00		0.0		0.0								
2017	05	15	82	50		0.02		0.0		0.0								
2017	05	16	87	61		0.00		0.0		0.0								
2017	05	17	84	62		0.37		0.0		0.0								
2017	05	18	78	48		0.00		0.0		0.0								
2017	05	19	50	43		0.23		0.0		0.0								
2017	05	20	64	48		0.34		0.0		0.0								
2017	05	21	65	51		0.05		0.0		0.0								
2017	05	22	73	48		0.01		0.0		0.0								
2017	05	23	62	55		0.33		0.0		0.0								
2017	05	24	62	53		0.17		0.0		0.0								
2017	05	25	69	52		0.00		0.0		0.0								
2017	05	26	71	52		0.53		0.0		0.0								
2017	05	27	78	52		0.00		0.0		0.0								
2017	05	28	77	56		T		0.0		0.0								
2017	05	29	77	55		0.00		0.0		0.0								
2017	05	30	74	54		T		0.0		0.0								
2017	05	31	74	52		0.00		0.0		0.0								
Summary			68	48		3.28		0.0										

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			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	06	01	81	51		0.00		0.0		0.0								
2017	06	02	86	53		0.00		0.0		0.0								
2017	06	03	84	57		T		0.0		0.0								
2017	06	04	92	66		0.00		0.0		0.0								
2017	06	05	75	59		0.00		0.0		0.0								
2017	06	06	76	54		0.00		0.0		0.0								
2017	06	07	77	56		0.00		0.0		0.0								
2017	06	08	83	53		0.06		0.0		0.0								
2017	06	09	87	65		T		0.0		0.0								
2017	06	10	90	64		0.00		0.0		0.0								
2017	06	11	93	73		0.00		0.0		0.0								
2017	06	12	95	73		0.00		0.0		0.0								
2017	06	13	88	68		0.00		0.0		0.0								
2017	06	14	92	68		0.59		0.0		0.0								
2017	06	15	91	68		0.07		0.0		0.0								
2017	06	16	86	67		0.22		0.0		0.0								
2017	06	17	87	69		0.42		0.0		0.0								
2017	06	18	79	69		T		0.0		0.0								
2017	06	19	80	62		0.03		T		0.0								
2017	06	20	80	58		T		0.0		0.0								
2017	06	21	80	55		0.00		0.0		0.0								
2017	06	22	88	68		T		0.0		0.0								
2017	06	23	83	66		0.71		0.0		0.0								
2017	06	24	75	59		0.02		0.0		0.0								
2017	06	25	72	54		0.00		0.0		0.0								
2017	06	26	75	54		0.00		0.0		0.0								
2017	06	27	78	50		0.00		0.0		0.0								
2017	06	28	80	58		1.30		0.0		0.0								
2017	06	29	81	66		0.02		0.0		0.0								
2017	06	30	84	64		0.00		0.0		0.0								
Summary			83	62		3.44		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	07	01	82	66		0.00		0.0		0.0								
2017	07	02	89	62		0.00		0.0		0.0								
2017	07	03	80	66		0.04		0.0		0.0								
2017	07	04	83	64		0.00		0.0		0.0								
2017	07	05	89	65		0.00		0.0		0.0								
2017	07	06	93	69		0.00		0.0		0.0								
2017	07	07	89	63		T		0.0		0.0								
2017	07	08	80	62		0.00		0.0		0.0								
2017	07	09	86	63		0.00		0.0		0.0								
2017	07	10	84	67		0.73		0.0		0.0								
2017	07	11	85	70		0.56		0.0		0.0								
2017	07	12	81	68		1.77		T		0.0								
2017	07	13	83	72		T		0.0		0.0								
2017	07	14	73	63		0.00		0.0		0.0								
2017	07	15	81	60		0.00		0.0		0.0								
2017	07	16	78	60		T		0.0		0.0								
2017	07	17	79	56		0.00		0.0		0.0								
2017	07	18	89	60		0.00		0.0		0.0								
2017	07	19	88	70		0.48		0.0		0.0								
2017	07	20	88	69		1.77		0.0		0.0								
2017	07	21	89	72		1.43		T		0.0								
2017	07	22	88	72		0.66		0.0		0.0								
2017	07	23	90	70		0.21		0.0		0.0								
2017	07	24	74	66		0.00		0.0		0.0								
2017	07	25	82	61		0.00		0.0		0.0								
2017	07	26	85	65		0.03		0.0		0.0								
2017	07	27	82	70		T		0.0		0.0								
2017	07	28	79	67		0.00		0.0		0.0								
2017	07	29	79	64		0.00		0.0		0.0								
2017	07	30	84	62		0.00		0.0		0.0								
2017	07	31	86	65		0.00		0.0		0.0								
Summary			84	65		7.68		0.0										

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Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	08	01	86	67		0.92		0.0		0.0								
2017	08	02	87	66		T		0.0		0.0								
2017	08	03	84	61		0.88		0.0		0.0								
2017	08	04	68	56		T		0.0		0.0								
2017	08	05	80	60		0.00		0.0		0.0								
2017	08	06	77	63		0.00		0.0		0.0								
2017	08	07	76	61		T		0.0		0.0								
2017	08	08	84	58		0.00		0.0		0.0								
2017	08	09	83	61		0.00		0.0		0.0								
2017	08	10	84	62		0.03		0.0		0.0								
2017	08	11	78	65		0.00		0.0		0.0								
2017	08	12	77	60		0.00		0.0		0.0								
2017	08	13	80	57		T		0.0		0.0								
2017	08	14	83	62		0.00		0.0		0.0								
2017	08	15	84	68		0.00		0.0		0.0								
2017	08	16	88	67		0.17		0.0		0.0								
2017	08	17	82	72		0.02		0.0		0.0								
2017	08	18	82	67		0.00		0.0		0.0								
2017	08	19	86	63		0.00		0.0		0.0								
2017	08	20	90	63		T		0.0		0.0								
2017	08	21	87	71		0.03		0.0		0.0								
2017	08	22	82	64		0.02		0.0		0.0								
2017	08	23	79	60		0.00		0.0		0.0								
2017	08	24	75	56		0.00		0.0		0.0								
2017	08	25	74	52		0.00		0.0		0.0								
2017	08	26	78	56		T		0.0		0.0								
2017	08	27	78	62		0.01		0.0		0.0								
2017	08	28	80	64		0.36		0.0		0.0								
2017	08	29	76	61		0.07		0.0		0.0								
2017	08	30	82	60		0.00		0.0		0.0								
2017	08	31	73	64		0.00		0.0		0.0								
Summary			81	62		2.51		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	09	01	69	50		0.00		0.0		0.0								
2017	09	02	75	50		0.25		0.0		0.0								
2017	09	03	84	57		0.00		0.0		0.0								
2017	09	04	82	62		T		0.0		0.0								
2017	09	05	70	54		T		0.0		0.0								
2017	09	06	67	49		T		0.0		0.0								
2017	09	07	71	52		0.00		0.0		0.0								
2017	09	08	69	58		T		0.0		0.0								
2017	09	09	72	54		0.00		0.0		0.0								
2017	09	10	70	50		0.00		0.0		0.0								
2017	09	11	75	52		0.00		0.0		0.0								
2017	09	12	77	54		0.00		0.0		0.0								
2017	09	13	77	58		T		0.0		0.0								
2017	09	14	81	59		0.00		0.0		0.0								
2017	09	15	87	62		0.00		0.0		0.0								
2017	09	16	88	65		0.00		0.0		0.0								
2017	09	17	86	63		0.00		0.0		0.0								
2017	09	18	77	58		0.00		0.0		0.0								
2017	09	19	79	64		0.07		0.0		0.0								
2017	09	20	92	62		0.00		0.0		0.0								
2017	09	21	94	72		0.00		0.0		0.0								
2017	09	22	94	71		0.00		0.0		0.0								
2017	09	23	95	72		0.00		0.0		0.0								
2017	09	24	93	70		0.00		0.0		0.0								
2017	09	25	92	67		0.00		0.0		0.0								
2017	09	26	92	70		0.00		0.0		0.0								
2017	09	27	72	56		0.00		0.0		0.0								
2017	09	28	74	53		0.00		0.0		0.0								
2017	09	29	70	56		0.00		0.0		0.0								
2017	09	30	68	53		0.00		0.0		0.0								
Summary			80	59		0.32		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	10	01	72	48		0.00		0.0		0.0								
2017	10	02	83	58		0.00		0.0		0.0								
2017	10	03	78	67		T		0.0		0.0								
2017	10	04	76	58		0.03		0.0		0.0								
2017	10	05	77	54		0.01		0.0		0.0								
2017	10	06	69	60		0.30		0.0		0.0								
2017	10	07	79	60		0.43		0.0		0.0								
2017	10	08	78	54		0.00		0.0		0.0								
2017	10	09	81	52		0.00		0.0		0.0								
2017	10	10	63	58		0.78		0.0		0.0								
2017	10	11	62	56		0.79		0.0		0.0								
2017	10	12	60	56		T		0.0		0.0								
2017	10	13	73	55		0.00		0.0		0.0								
2017	10	14	66	62		4.19		0.0		0.0								
2017	10	15	68	47		0.20		0.0		0.0								
2017	10	16	63	43		0.00		0.0		0.0								
2017	10	17	70	49		0.00		0.0		0.0								
2017	10	18	71	47		0.00		0.0		0.0								
2017	10	19	70	51		0.00		0.0		0.0								
2017	10	20	78	51		0.00		0.0		0.0								
2017	10	21	77	60		0.00		0.0		0.0								
2017	10	22	70	51		0.37		0.0		0.0								
2017	10	23	54	50		0.73		0.0		0.0								
2017	10	24	50	42		0.87		0.0		0.0								
2017	10	25	53	38		0.00		0.0		0.0								
2017	10	26	60	36		0.00		0.0		0.0								
2017	10	27	52	38		T		0.0		0.0								
2017	10	28	40	36		T		T		0.0								
2017	10	29	46	33		0.00		0.0		0.0								
2017	10	30	50	37		0.00		0.0		0.0								
2017	10	31	40	34		0.00		0.0		0.0								
Summary			65	50		8.70		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	11	01	44	36		0.23		0.0		0.0								
2017	11	02	51	44		0.02		0.0		0.0								
2017	11	03	48	38		0.00		0.0		0.0								
2017	11	04	50	42		0.48		0.0		0.0								
2017	11	05	52	42		0.02		0.0		0.0								
2017	11	06	43	32		0.00		0.0		0.0								
2017	11	07	45	32		0.00		0.0		0.0								
2017	11	08	46	29		0.00		0.0		0.0								
2017	11	09	46	21		0.00		0.0		0.0								
2017	11	10	30	18		T		0.1		0.0								
2017	11	11	38	26		0.00		0.0		0.0								
2017	11	12	40	36		0.13		T		0.0								
2017	11	13	40	31		0.00		0.0		0.0								
2017	11	14	49	30		0.00		0.0		0.0								
2017	11	15	52	35		0.17		0.0		0.0								
2017	11	16	38	33		0.00		0.0		0.0								
2017	11	17	48	35		0.14		0.0		0.0								
2017	11	18	48	35		0.54		T		0.0								
2017	11	19	37	30		0.00		0.0		0.0								
2017	11	20	52	30		0.00		0.0		0.0								
2017	11	21	44	27		0.02		0.0		0.0								
2017	11	22	35	22		0.00		0.0		0.0								
2017	11	23	46	32		0.00		0.0		0.0								
2017	11	24	63	32		0.00		0.0		0.0								
2017	11	25	55	32		0.00		0.0		0.0								
2017	11	26	49	27		0.00		0.0		0.0								
2017	11	27	57	31		0.00		0.0		0.0								
2017	11	28	61	43		0.00		0.0		0.0								
2017	11	29	47	34		0.00		0.0		0.0								
2017	11	30	54	39		0.00		0.0		0.0								
Summary			47	32		1.75		0.1										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	12	01	53	28		0.00		0.0		0.0								
2017	12	02	54	33		0.00		0.0		0.0								
2017	12	03	58	29		0.00		0.0		0.0								
2017	12	04	65	44		0.16		0.0		0.0								
2017	12	05	44	27		0.00		0.0		0.0								
2017	12	06	35	26		0.00		0.0		0.0								
2017	12	07	29	19		T		T		0.0								
2017	12	08	37	18		0.01		T		0.0								
2017	12	09	32	20		0.03		0.6		1.2								
2017	12	10	35	20		0.00		0.0		0.0								
2017	12	11	39	23		0.08		1.4		0.0								
2017	12	12	31	17		T		T		1.2								
2017	12	13	38	22		T		T		1.2								
2017	12	14	27	16		T		T		0.0								
2017	12	15	37	21		T		T		0.0								
2017	12	16	46	27		0.00		0.0		0.0								
2017	12	17	42	29		0.00		0.0		0.0								
2017	12	18	46	39		0.01		0.0		0.0								
2017	12	19	50	35		0.00		0.0		0.0								
2017	12	20	37	27		0.00		0.0		0.0								
2017	12	21	40	32		0.00		0.0		0.0								
2017	12	22	39	33		T		0.0		0.0								
2017	12	23	33	19		0.00		0.0		0.0								
2017	12	24	22	18		0.18		1.8		0.0								
2017	12	25	21	2		0.01		0.1		2.0								
2017	12	26	5	-3		0.00		0.0		1.2								
2017	12	27	7	-4		0.00		0.0		1.2								
2017	12	28	15	0		0.03		0.6		1.2								
2017	12	29	15	9		0.08		0.8		2.0								
2017	12	30	15	-1		T		T		2.0								
2017	12	31	13	-1		0.00		0.0		2.0								
Summary			34	20		0.59		5.3										

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Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	01	01	1	-9		0.00		0.0		1.2								
2018	01	02	8	-9		0.00		0.0		1.2								
2018	01	03	17	6		T		0.1		1.2								
2018	01	04	12	0		0.00		0.0		1.2								
2018	01	05	11	-1		0.00		0.0		1.2								
2018	01	06	17	-2		0.00		0.0		1.2								
2018	01	07	33	8		0.03		T		1.0								
2018	01	08	37	31		T		0.0		1.2								
2018	01	09	36	26		0.00		0.0		0.0								
2018	01	10	56	30		0.01		0.0		0.0								
2018	01	11	59	23		0.36		0.0		0.0								
2018	01	12	23	14		T		T		0.0								
2018	01	13	16	6		0.00		0.0		0.0								
2018	01	14	21	5		0.08		0.8		0.0								
2018	01	15	24	10		0.14		2.3		2.0								
2018	01	16	26	9		0.01		0.6		3.1								
2018	01	17	20	4		0.00		0.0		3.1								
2018	01	18	32	16		0.00		0.0		2.0								
2018	01	19	40	28		0.00		0.0		2.0								
2018	01	20	45	32		0.00		0.0		0.0								
2018	01	21	44	36		T		0.0		0.0								
2018	01	22	54	38		0.81		0.0		0.0								
2018	01	23	39	28		0.07		0.5		0.0								
2018	01	24	30	27		0.02		0.3		1.2								
2018	01	25	43	24		0.00		0.0		1.2								
2018	01	26	51	33		0.00		0.0		0.0								
2018	01	27	50	36		0.00		0.0		0.0								
2018	01	28	40	28		0.01		T		0.0								
2018	01	29	30	17		T		T		0.0								
2018	01	30	31	15		0.00		0.0		0.0								
2018	01	31	42	31		0.00		0.0		0.0								
Summary			32	17		1.54		4.6										

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\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

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Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	02	01	35	8		0.00		0.0		0.0								
2018	02	02	22	5		0.00		0.0		0.0								
2018	02	03	41	22		0.03		0.8		0.0								
2018	02	04	35	4		0.08		1.1		1.2								
2018	02	05	12	-3		0.22		2.2		2.0								
2018	02	06	21	3		0.02		0.2		3.9								
2018	02	07	20	8		0.11		1.7		3.9								
2018	02	08	21	7		0.15		1.6		3.9								
2018	02	09	28	18		0.57		6.2		7.9								
2018	02	10	22	14		0.05		0.8		9.8								
2018	02	11	22	11		0.39		3.7		11.8								
2018	02	12	27	4		0.00		0.0		11.8								
2018	02	13	35	7		0.00		0.0		11.0								
2018	02	14	44	24		T		0.0		9.8								
2018	02	15	48	38		T		0.0		3.9								
2018	02	16	37	20		0.00		0.0		0.0								
2018	02	17	35	17		0.11		2.0		0.0								
2018	02	18	41	12		0.02		0.0		2.0								
2018	02	19	60	37		0.52		0.0		0.0								
2018	02	20	66	34		2.10		0.0		0.0								
2018	02	21	34	27		0.04		T		0.0								
2018	02	22	40	29		0.00		0.0		0.0								
2018	02	23	44	33		0.06		0.0		0.0								
2018	02	24	50	33		0.16		0.0		0.0								
2018	02	25	50	34		0.01		0.0		0.0								
2018	02	26	53	28		0.00		0.0		0.0								
2018	02	27	62	39		0.00		0.0		0.0								
2018	02	28	59	37		0.00		0.0		0.0								
Summary			38	20		4.64		20.3										

Empty, or blank, cells indicate that a data observation was not reported.

\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	03	01	46	34		0.81		0.0		0.0								
2018	03	02	48	30		0.00		0.0		0.0								
2018	03	03	43	33		0.00		0.0		0.0								
2018	03	04	46	32		0.00		0.0		0.0								
2018	03	05	40	33		0.11		0.4		0.0								
2018	03	06	41	31		0.07		T		0.0								
2018	03	07	34	25		T		T		0.0								
2018	03	08	34	24		0.00		0.0		0.0								
2018	03	09	41	23		0.00		0.0		0.0								
2018	03	10	41	23		0.00		0.0		0.0								
2018	03	11	40	28		0.00		0.0		0.0								
2018	03	12	46	30		T		T		0.0								
2018	03	13	35	19		0.22		2.2		0.0								
2018	03	14	48	22		0.00		0.0		1.2								
2018	03	15	50	28		0.00		0.0		0.0								
2018	03	16	38	29		0.00		0.0		0.0								
2018	03	17	46	30		T		T		0.0								
2018	03	18	57	27		0.00		0.0		0.0								
2018	03	19	46	33		0.00		0.0		0.0								
2018	03	20	37	29		0.00		0.0		0.0								
2018	03	21	40	25		0.00		0.0		0.0								
2018	03	22	50	22		0.00		0.0		0.0								
2018	03	23	43	25		0.00		0.0		0.0								
2018	03	24	40	32		0.00		0.0		0.0								
2018	03	25	41	27		0.00		0.0		0.0								
2018	03	26	53	31		0.23		0.0		0.0								
2018	03	27	51	39		0.15		0.0		0.0								
2018	03	28	54	39		0.01		0.0		0.0								
2018	03	29	50	35		0.05		0.0		0.0								
2018	03	30	49	33		0.00		0.0		0.0								
2018	03	31	58	32		0.09		0.0		0.0								
Summary			45	29		1.74		2.6										

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U.S. Department of Commerce  
National Oceanic & Atmospheric Administration  
National Environmental Satellite, Data, and Information Service  
Current Location: Elev: 662 ft. Lat: 41.9950° N Lon: -87.9336° W  
Station: CHICAGO OHARE INTERNATIONAL AIRPORT, IL US  
USW00094846

**Record of Climatological Observations**  
These data are quality controlled and may not be identical  
to the original observations.  
Generated on 01/28/2019

National Centers for Environmental Information  
151 Patton Avenue  
Asheville, North Carolina 28801

Observation Time Temperature: Unknown Observation Time Precipitation: 2400

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	04	01	35	24		0.00		0.0		0.0								
2018	04	02	44	21		0.00		0.0		0.0								
2018	04	03	40	34		0.20		T		0.0								
2018	04	04	35	26		0.01		0.2		0.0								
2018	04	05	42	23		0.07		T		0.0								
2018	04	06	38	25		0.00		0.0		0.0								
2018	04	07	39	20		0.00		0.0		0.0								
2018	04	08	39	21		0.01		T		0.0								
2018	04	09	39	30		0.13		2.0		1.2								
2018	04	10	46	28		T		0.0		0.0								
2018	04	11	66	39		0.05		0.0		0.0								
2018	04	12	73	42		0.03		0.0		0.0								
2018	04	13	47	39		0.07		0.0		0.0								
2018	04	14	39	36		0.96		0.0		0.0								
2018	04	15	37	28		0.74		0.2		0.0								
2018	04	16	35	27		0.01		0.3		0.0								
2018	04	17	43	29		0.00		0.0		0.0								
2018	04	18	37	30		0.41		0.4		0.0								
2018	04	19	55	31		0.01		0.1		0.0								
2018	04	20	61	31		0.00		0.0		0.0								
2018	04	21	55	39		0.00		0.0		0.0								
2018	04	22	62	42		0.00		0.0		0.0								
2018	04	23	63	43		T		0.0		0.0								
2018	04	24	65	48		T		0.0		0.0								
2018	04	25	53	38		0.00		0.0		0.0								
2018	04	26	66	36		0.00		0.0		0.0								
2018	04	27	58	39		0.02		0.0		0.0								
2018	04	28	50	33		0.00		0.0		0.0								
2018	04	29	59	31		0.00		0.0		0.0								
2018	04	30	80	40		0.00		0.0		0.0								
Summary			50	32		2.72		3.2										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	05	01	86	60		0.00		0.0		0.0								
2018	05	02	86	63		1.32		0.0		0.0								
2018	05	03	70	54		0.57		0.0		0.0								
2018	05	04	74	61		0.00		0.0		0.0								
2018	05	05	82	57		0.00		0.0		0.0								
2018	05	06	68	50		T		0.0		0.0								
2018	05	07	75	46		0.00		0.0		0.0								
2018	05	08	81	57		0.00		0.0		0.0								
2018	05	09	81	57		0.25		0.0		0.0								
2018	05	10	73	50		0.00		0.0		0.0								
2018	05	11	52	45		0.04		0.0		0.0								
2018	05	12	50	44		0.33		0.0		0.0								
2018	05	13	67	45		0.91		0.0		0.0								
2018	05	14	83	53		1.54		0.0		0.0								
2018	05	15	71	51		0.00		0.0		0.0								
2018	05	16	79	47		0.00		0.0		0.0								
2018	05	17	69	52		0.00		0.0		0.0								
2018	05	18	65	52		0.10		0.0		0.0								
2018	05	19	69	54		0.02		0.0		0.0								
2018	05	20	55	44		0.27		0.0		0.0								
2018	05	21	64	49		1.96		0.0		0.0								
2018	05	22	67	54		T		0.0		0.0								
2018	05	23	80	52		0.00		0.0		0.0								
2018	05	24	87	58		0.00		0.0		0.0								
2018	05	25	89	67		0.00		0.0		0.0								
2018	05	26	90	70		0.00		0.0		0.0								
2018	05	27	97	70		0.00		0.0		0.0								
2018	05	28	95	70		0.00		0.0		0.0								
2018	05	29	87	66		0.00		0.0		0.0								
2018	05	30	86	67		0.90		0.0		0.0								
2018	05	31	89	69		0.00		0.0		0.0								
Summary			76	56		8.21		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	06	01	76	53		0.00		0.0		0.0								
2018	06	02	70	52		0.31		0.0		0.0								
2018	06	03	78	60		0.00		0.0		0.0								
2018	06	04	80	55		0.00		0.0		0.0								
2018	06	05	72	54		0.01		0.0		0.0								
2018	06	06	79	48		0.10		0.0		0.0								
2018	06	07	81	60		0.00		0.0		0.0								
2018	06	08	73	59		T		0.0		0.0								
2018	06	09	82	57		1.31		0.0		0.0								
2018	06	10	71	60		1.34		0.0		0.0								
2018	06	11	70	61		0.10		0.0		0.0								
2018	06	12	80	62		T		0.0		0.0								
2018	06	13	81	64		0.00		0.0		0.0								
2018	06	14	81	64		0.00		0.0		0.0								
2018	06	15	89	64		0.00		0.0		0.0								
2018	06	16	92	69		0.65		0.0		0.0								
2018	06	17	93	78		T		0.0		0.0								
2018	06	18	95	66		0.36		0.0		0.0								
2018	06	19	81	63		0.02		0.0		0.0								
2018	06	20	77	65		T		0.0		0.0								
2018	06	21	67	62		1.41		0.0		0.0								
2018	06	22	64	59		1.23		0.0		0.0								
2018	06	23	81	62		T		0.0		0.0								
2018	06	24	80	64		0.00		0.0		0.0								
2018	06	25	78	61		0.00		0.0		0.0								
2018	06	26	84	66		0.76		0.0		0.0								
2018	06	27	80	69		0.03		0.0		0.0								
2018	06	28	88	68		0.00		0.0		0.0								
2018	06	29	96	73		0.00		0.0		0.0								
2018	06	30	94	80		0.00		0.0		0.0								
Summary			80	63		7.63		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	07	01	94	76		0.24		0.0		0.0								
2018	07	02	85	69		0.00		0.0		0.0								
2018	07	03	89	63		0.00		0.0		0.0								
2018	07	04	93	76		0.01		0.0		0.0								
2018	07	05	92	74		0.02		0.0		0.0								
2018	07	06	75	64		0.00		0.0		0.0								
2018	07	07	82	59		0.00		0.0		0.0								
2018	07	08	88	63		0.00		0.0		0.0								
2018	07	09	91	67		0.00		0.0		0.0								
2018	07	10	87	71		0.00		0.0		0.0								
2018	07	11	87	67		0.00		0.0		0.0								
2018	07	12	87	70		0.00		0.0		0.0								
2018	07	13	95	72		0.00		0.0		0.0								
2018	07	14	82	72		0.26		0.0		0.0								
2018	07	15	91	72		T		0.0		0.0								
2018	07	16	93	72		0.08		0.0		0.0								
2018	07	17	81	68		0.00		0.0		0.0								
2018	07	18	80	63		0.00		0.0		0.0								
2018	07	19	87	67		0.03		0.0		0.0								
2018	07	20	78	70		0.15		0.0		0.0								
2018	07	21	79	69		0.12		0.0		0.0								
2018	07	22	76	67		0.13		0.0		0.0								
2018	07	23	82	65		0.00		0.0		0.0								
2018	07	24	88	66		0.00		0.0		0.0								
2018	07	25	90	67		0.00		0.0		0.0								
2018	07	26	81	66		0.03		0.0		0.0								
2018	07	27	79	62		0.00		0.0		0.0								
2018	07	28	82	61		0.00		0.0		0.0								
2018	07	29	83	62		0.07		0.0		0.0								
2018	07	30	82	62		0.00		0.0		0.0								
2018	07	31	80	66		0.00		0.0		0.0								
Summary			85	67		1.14		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	08	01	85	63		T		0.0		0.0								
2018	08	02	85	70		0.00		0.0		0.0								
2018	08	03	89	67		0.00		0.0		0.0								
2018	08	04	97	71		0.00		0.0		0.0								
2018	08	05	94	75		T		0.0		0.0								
2018	08	06	81	69		0.34		0.0		0.0								
2018	08	07	83	69		2.36		0.0		0.0								
2018	08	08	85	69		0.00		0.0		0.0								
2018	08	09	89	69		0.43		0.0		0.0								
2018	08	10	83	70		0.00		0.0		0.0								
2018	08	11	88	68		0.00		0.0		0.0								
2018	08	12	87	70		0.00		0.0		0.0								
2018	08	13	89	66		0.00		0.0		0.0								
2018	08	14	87	71		0.00		0.0		0.0								
2018	08	15	85	73		0.01		0.0		0.0								
2018	08	16	86	69		0.50		0.0		0.0								
2018	08	17	85	68		0.11		0.0		0.0								
2018	08	18	80	70		0.00		0.0		0.0								
2018	08	19	86	68		0.00		0.0		0.0								
2018	08	20	79	69		0.82		0.0		0.0								
2018	08	21	78	66		0.13		0.0		0.0								
2018	08	22	79	58		0.00		0.0		0.0								
2018	08	23	80	60		0.00		0.0		0.0								
2018	08	24	72	63		0.04		0.0		0.0								
2018	08	25	86	66		0.06		0.0		0.0								
2018	08	26	93	72		T		0.0		0.0								
2018	08	27	93	78		0.00		0.0		0.0								
2018	08	28	91	67		1.39		0.0		0.0								
2018	08	29	76	65		0.42		0.0		0.0								
2018	08	30	73	61		0.00		0.0		0.0								
2018	08	31	85	60		T		0.0		0.0								
Summary			85	68		6.61		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	09	01	86	72		0.16		0.0		0.0								
2018	09	02	91	70		0.02		0.0		0.0								
2018	09	03	88	70		1.79		0.0		0.0								
2018	09	04	92	71		0.00		0.0		0.0								
2018	09	05	91	69		0.24		0.0		0.0								
2018	09	06	69	64		0.53		0.0		0.0								
2018	09	07	69	63		0.30		0.0		0.0								
2018	09	08	69	63		0.00		0.0		0.0								
2018	09	09	68	60		0.00		0.0		0.0								
2018	09	10	74	56		0.00		0.0		0.0								
2018	09	11	79	57		0.00		0.0		0.0								
2018	09	12	82	61		0.00		0.0		0.0								
2018	09	13	78	60		0.00		0.0		0.0								
2018	09	14	87	64		0.00		0.0		0.0								
2018	09	15	82	64		0.00		0.0		0.0								
2018	09	16	89	66		0.00		0.0		0.0								
2018	09	17	91	69		0.00		0.0		0.0								
2018	09	18	75	66		T		0.0		0.0								
2018	09	19	76	66		0.21		0.0		0.0								
2018	09	20	93	66		0.00		0.0		0.0								
2018	09	21	83	56		0.00		0.0		0.0								
2018	09	22	64	51		0.00		0.0		0.0								
2018	09	23	71	50		0.00		0.0		0.0								
2018	09	24	74	57		T		0.0		0.0								
2018	09	25	84	61		0.25		0.0		0.0								
2018	09	26	67	50		0.00		0.0		0.0								
2018	09	27	70	48		0.00		0.0		0.0								
2018	09	28	60	46		0.07		0.0		0.0								
2018	09	29	61	42		0.02		0.0		0.0								
2018	09	30	62	53		0.06		0.0		0.0								
Summary			78	60		3.65		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	10	01	72	57		1.56		0.0		0.0								
2018	10	02	67	58		0.01		0.0		0.0								
2018	10	03	88	59		T		0.0		0.0								
2018	10	04	77	52		0.04		0.0		0.0								
2018	10	05	65	54		1.24		0.0		0.0								
2018	10	06	70	57		0.12		0.0		0.0								
2018	10	07	63	57		0.52		0.0		0.0								
2018	10	08	85	63		0.15		0.0		0.0								
2018	10	09	85	70		0.01		0.0		0.0								
2018	10	10	75	51		0.35		0.0		0.0								
2018	10	11	51	40		0.00		0.0		0.0								
2018	10	12	42	36		T		0.0		0.0								
2018	10	13	53	32		0.00		0.0		0.0								
2018	10	14	54	38		0.07		0.0		0.0								
2018	10	15	48	37		0.10		0.0		0.0								
2018	10	16	59	34		0.00		0.0		0.0								
2018	10	17	51	38		0.00		0.0		0.0								
2018	10	18	58	34		0.00		0.0		0.0								
2018	10	19	54	46		0.03		0.0		0.0								
2018	10	20	51	31		T		T		0.0								
2018	10	21	51	28		0.00		0.0		0.0								
2018	10	22	64	38		0.00		0.0		0.0								
2018	10	23	54	38		0.00		0.0		0.0								
2018	10	24	52	37		0.00		0.0		0.0								
2018	10	25	53	37		0.00		0.0		0.0								
2018	10	26	53	46		0.00		0.0		0.0								
2018	10	27	54	43		T		0.0		0.0								
2018	10	28	51	44		0.12		0.0		0.0								
2018	10	29	56	40		0.00		0.0		0.0								
2018	10	30	64	45		0.30		0.0		0.0								
2018	10	31	61	47		0.17		0.0		0.0								
Summary			61	45		4.79		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	11	01	52	43		0.00		0.0		0.0								
2018	11	02	50	37		0.00		0.0		0.0								
2018	11	03	50	34		0.06		0.0		0.0								
2018	11	04	52	46		0.54		0.0		0.0								
2018	11	05	51	44		0.37		0.0		0.0								
2018	11	06	50	38		0.06		0.0		0.0								
2018	11	07	39	33		0.00		0.0		0.0								
2018	11	08	41	33		0.00		0.0		0.0								
2018	11	09	37	20		0.13		1.0		0.0								
2018	11	10	33	20		0.00		0.0		0.0								
2018	11	11	41	28		0.00		0.0		0.0								
2018	11	12	34	24		0.00		0.0		0.0								
2018	11	13	29	19		0.00		0.0		0.0								
2018	11	14	36	17		0.00		0.0		0.0								
2018	11	15	35	26		0.09		1.1		0.0								
2018	11	16	41	29		T		T		0.0								
2018	11	17	35	32		0.13		1.5		0.0								
2018	11	18	38	25		T		T		0.0								
2018	11	19	34	23		T		T		0.0								
2018	11	20	35	29		T		T		0.0								
2018	11	21	36	30		0.00		0.0		0.0								
2018	11	22	40	31		0.00		0.0		0.0								
2018	11	23	51	34		0.04		0.0		0.0								
2018	11	24	47	40		0.18		0.0		0.0								
2018	11	25	40	33		1.20		3.3		0.0								
2018	11	26	33	24		0.39		5.1		7.1								
2018	11	27	25	19		T		T		5.9								
2018	11	28	27	17		0.05		0.7		5.1								
2018	11	29	38	27		T		T		5.1								
2018	11	30	42	28		T		0.0		5.1								
Summary			40	29		3.24		12.7										

Empty, or blank, cells indicate that a data observation was not reported.

\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Observation	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	12	01	42	36		1.13		0.0		3.1								
2018	12	02	44	35		0.10		T		0.0								
2018	12	03	35	29		0.01		0.3		0.0								
2018	12	04	32	28		T		T		0.0								
2018	12	05	33	25		T		T		0.0								
2018	12	06	33	19		0.00		0.0		0.0								
2018	12	07	25	16		0.00		0.0		0.0								
2018	12	08	32	20		0.00		0.0		0.0								
2018	12	09	35	17		0.00		0.0		0.0								
2018	12	10	34	16		0.00		0.0		0.0								
2018	12	11	38	25		0.00		0.0		0.0								
2018	12	12	41	29		T		T		0.0								
2018	12	13	46	24		0.15		0.0		0.0								
2018	12	14	40	32		0.13		0.0		0.0								
2018	12	15	46	26		0.00		0.0		0.0								
2018	12	16	49	25		0.00		0.0		0.0								
2018	12	17	42	28		0.00		0.0		0.0								
2018	12	18	42	25		0.00		0.0		0.0								
2018	12	19	49	33		0.00		0.0		0.0								
2018	12	20	46	38		0.10		0.0		0.0								
2018	12	21	38	29		0.05		T		0.0								
2018	12	22	34	28		T		T		0.0								
2018	12	23	38	28		0.00		0.0		0.0								
2018	12	24	33	23		0.00		0.0		0.0								
2018	12	25	45	28		0.00		0.0		0.0								
2018	12	26	47	26		0.00		0.0		0.0								
2018	12	27	53	39		0.66		0.0		0.0								
2018	12	28	53	30		0.08		0.2		0.0								
2018	12	29	30	22		0.05		0.9		0.0								
2018	12	30	36	19		0.00		0.0		0.0								
2018	12	31																
Summary			40	27		2.46		1.4										

Empty, or blank, cells indicate that a data observation was not reported.

\*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.



## GHCN (Global Historical Climatology Network) – Daily Documentation

**NOTE: English units are displayed on pdf output format; Either Metric or standard English units on csv or txt output formats depending on user specification.**

### **I. Description**

GHCN (Global Historical Climatology Network)-Daily is a database that addresses the critical need for historical daily temperature, precipitation, and snow records over global land areas. GHCN-Daily is a composite of climate records from numerous sources that were merged and then subjected to a suite of quality assurance reviews. The archive includes over 40 meteorological elements (see Table 4 below for complete list) including temperature daily maximum/minimum, temperature at observation time, precipitation, snowfall, snow depth, evaporation, wind movement, wind maximums, soil temperature, cloudiness, and more.

GHCN-Daily will serve as a replacement product for older NCDC-maintained data sets that are designated for daily temporal resolution (i.e. DSI 3200, DSI 3201, DSI 3202, DSI 3205, DSI 3206, DSI 3208, DSI 3210, etc.). It will function as the official archive for daily data from the Global Climate Observing System (GCOS) Surface Network (GSN) and is particularly well suited for monitoring and assessment activities related to the frequency and magnitude of extremes. Containing observations of one or more of the above elements at more than 100,000 stations that are distributed across all continents, the dataset is the world's largest collection of daily climatological data. The total of 1.4 billion data values includes 250 million values each for maximum and minimum temperatures, 500 million precipitation totals, and 200 million observations each for snowfall and snow depth. Station records, some of which extend back to the 19th century, are updated daily where possible and are usually available one to two days after the date and time of the observation.

Some of the data provided here are based on data exchanged under the World Meteorological Organization (WMO) World Weather Watch Program according to WMO Resolution 40 (Cg-XII). This allows WMO member countries to place restrictions on the use or re-export of their data for commercial purposes outside of the receiving country. Those countries' data summaries and products which are available here are intended for free and unrestricted use in research, education, and other non-commercial activities. For non-U.S. locations data, the data or any derived product shall not be provided to other users or be used for the re-export of commercial services.

### **II. Format/Observation Definitions**

(note: the term 'element' or 'value' is used throughout this documentation and refers to an individual meteorological/climatological measurement or statistical value such as temperature, precipitation (amount), etc.)

Users are given the choice between the following two delivery formats:

- 1) GHCN-Daily Form - Portable Document Format (PDF) output giving 5 core values (see Table 4) and, if available, the following additional values: TOBS (temperature at the time of observation), EVAP (evaporation of water from evaporation pan), WDMV (24-hour wind movement), SN\*# (minimum soil temperature) and SX\*# (maximum soil temperature). More details about these values are in Table 4 (below). There are no flags (attributes) given with the GHCN- Daily Form pdf file other than measurement flag “T” (trace value for precipitation, snowfall or snow depth, as per table 3 below). Units for data values can be in metric or standard depending on user preference for both CSV and text output. Empty, or blank, cells indicate that a data observation was not reported.
- 2) Custom GHCN-Daily CSV- Output files contain .csv extension and optimized for spreadsheet usage (i.e. delimited file). Besides unit preference, user is also given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.
- 3) Custom GHCN-Daily ASCII Form-Output is ASCII text file and the user is given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.

#### **A. Data observations (values)**

Each record represents all selected observations (values) available for a given station-day. The initial section of each record is ordered as follows with the following definitions:

**STATION** (17 characters) is the station identification code. Please see

<http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/ghcnd-stations.txt>

for a complete list of stations and their metadata.

**STATION\_NAME** (max 50 characters) is the name of the station (usually city/airport name). Optional output field.

**GEOGRAPHIC\_LOCATION** (31 characters) is the latitude (decimated degrees w/northern hemisphere values > 0, southern hemisphere values < 0), longitude (decimated degrees w/western hemisphere values < 0, eastern hemisphere values > 0) and elevation above mean sea level (tenths of meters). This is an optional output field.

**DATE** is the year of the record (4 digits) followed by month (2 digits) and day (2 digits).

#### **B. Observations (values) and flags (attributes)**

Following this initial section of the record, all selected observations and flags are given in the following order:

Observation(s) | Measurement Flag | Quality Flag | Source Flag | Time of Observation | repeat for next element (when more than one element is selected), where:

**Observation(s)** is/are defined in Table 4 below. 9's in a field (e.g.9999) indicate missing data or data that has not been received.

**Measurement Flag (attribute)** is defined in **Table 1** below

**Quality Flag (attribute)** is defined in **Table 2** below

**Source Flag (attribute)** is defined in **Table 3** below

**Time of Observation** is the (2 digit hour, 2 digit minute) 24 hour clock time of the observation given as the local time at the station of record.

Note: The 4 flags listed above are optional on the Custom GHCN-Daily ASCII Form.

**Table 1 (Measurement Flag/Attribute)**

Blank = no measurement information applicable

- A = value in precipitation or snow is a multi-day total, accumulated since last measurement  
(used on Daily Form pdf file)
- B = precipitation total formed from two twelve-hour totals
- D = precipitation total formed from four six-hour totals
- H = represents highest or lowest hourly temperature (TMAX or TMIN)  
or average of hourly values (TAVG)
- K = converted from knots
- L = temperature appears to be lagged with respect to reported  
hour of observation
- O = converted from oktas
- P = identified as "missing presumed zero" in DSI 3200 and 3206
- T = trace of precipitation, snowfall, or snow depth
- W = converted from 16-point WBAN code (for wind direction)

**Table 2 (Quality Flag/Attribute)**

Blank = did not fail any quality assurance check

- D = failed duplicate check
- G = failed gap check
- I = failed internal consistency check
- K = failed streak/frequent-value check
- L = failed check on length of multiday period
- M = failed mega-consistency check
- N = failed naught check
- O = failed climatological outlier check
- R = failed lagged range check

- S = failed spatial consistency check
- T = failed temporal consistency check
- W = temperature too warm for snow
- X = failed bounds check
- Z = flagged as a result of an official Datzilla investigation

**Table 3 (Source Flag/Attribute)**

Blank = No source (i.e., data value missing)

- 0 = U.S. Cooperative Summary of the Day (NCDC DSI-3200)
- 6 = CDMP Cooperative Summary of the Day (NCDC DSI-3206)
- 7 = U.S. Cooperative Summary of the Day -- Transmitted via WxCoder3 (NCDC DSI-3207)
- A = U.S. Automated Surface Observing System (ASOS) real-time data (since January 1, 2006)
- a = Australian data from the Australian Bureau of Meteorology
- B = U.S. ASOS data for October 2000-December 2005 (NCDC DSI-3211)
- b = Belarus update
- C = Environment Canada
- E = European Climate Assessment and Dataset (Klein Tank et al., 2002)
- F = U.S. Fort data
- G = Official Global Climate Observing System (GCOS) or other government-supplied data
- H = High Plains Regional Climate Center real-time data
- I = International collection (non U.S. data received through personal contacts)
- K = U.S. Cooperative Summary of the Day data digitized from paper observer forms (from 2011 to present)
- M = Monthly METAR Extract (additional ASOS data)
- N = Community Collaborative Rain, Hail, and Snow (CoCoRaHS)
- Q = Data from several African countries that had been "quarantined", that is, withheld from public release until permission was granted from the respective meteorological services
- R = NCDC Reference Network Database (Climate Reference Network and Historical Climatology Network-Modernized)
- r = All-Russian Research Institute of Hydrometeorological Information-World Data Center
- S = Global Summary of the Day (NCDC DSI-9618)  
NOTE: "S" values are derived from hourly synoptic reports exchanged on the Global Telecommunications System (GTS). Daily values derived in this fashion may differ significantly from "true" daily data, particularly for precipitation(i.e., use with caution).
- s = China Meteorological Administration/National Meteorological Information Center/Climate Data Center (<http://cdc.cma.gov.cn>)
- T = SNOwpack TELeentry (SNOTEL) data obtained from the Western Regional Climate Center
- U = Remote Automatic Weather Station (RAWS) data obtained from the Western Regional Climate Center
- u = Ukraine update
- W = WBAN/ASOS Summary of the Day from NCDC's Integrated Surface Data (ISD).
- X = U.S. First-Order Summary of the Day (NCDC DSI-3210)
- Z = Datzilla official additions or replacements
- z = Uzbekistan update

#### **Table 4 (observation/value)**

Note: 9's in a field (e.g.9999) indicate missing data or data that has not been received.

The five core values are:

PRCP = Precipitation (mm or inches as per user preference, inches to hundredths on Daily Form pdf file)  
SNOW = Snowfall (mm or inches as per user preference, inches to tenths on Daily Form pdf file)  
SNWD = Snow depth (mm or inches as per user preference, inches on Daily Form pdf file)  
TMAX = Maximum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)  
TMIN = Minimum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)

The other values are:

ACMC = Average cloudiness midnight to midnight from 30-second ceilometer data (percent)  
ACMH = Average cloudiness midnight to midnight from manual observations (percent)  
ACSC = Average cloudiness sunrise to sunset from 30-second ceilometer data (percent)  
ACSH = Average cloudiness sunrise to sunset from manual observations (percent)  
AWND = Average daily wind speed (meters per second or miles per hour as per user preference)  
DAEV = Number of days included in the multiday evaporation total (MDEV)  
DAPR = Number of days included in the multiday precipitation total (MDPR)  
DASF = Number of days included in the multiday snowfall total (MDSF)  
DATN = Number of days included in the multiday minimum temperature (MDTN)  
DATX = Number of days included in the multiday maximum temperature (MDTX)  
DAWM = Number of days included in the multiday wind movement (MDWM)  
DWPR = Number of days with non-zero precipitation included in multiday precipitation total (MDPR)  
EVAP = Evaporation of water from evaporation pan (mm or inches as per user preference, or hundredths of inches on Daily Form pdf file)  
FMTM = Time of fastest mile or fastest 1-minute wind (hours and minutes, i.e., HHMM)  
FRGB = Base of frozen ground layer (cm or inches as per user preference)  
FRGT = Top of frozen ground layer (cm or inches as per user preference)  
FRTH = Thickness of frozen ground layer (cm or inches as per user preference)  
GAHT = Difference between river and gauge height (cm or inches as per user preference)  
MDEV = Multiday evaporation total (mm or inches as per user preference; use with DAEV)  
MDPR = Multiday precipitation total (mm or inches as per user preference; use with DAPR and DWPR, if available)  
MDSF = Multiday snowfall total (mm or inches as per user preference)  
MDTN = Multiday minimum temperature (Fahrenheit or Celsius as per user preference ; use with DATN)  
MDTX = Multiday maximum temperature (Fahrenheit or Celsius as per user preference ; use with DATX)  
MDWM = Multiday wind movement (miles or km as per user preference)  
MNPN = Daily minimum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)  
MXPN = Daily maximum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)

PGTM = Peak gust time (hours and minutes, i.e., HHMM)

PSUN = Daily percent of possible sunshine (percent)

SN\*# = Minimum soil temperature where \* corresponds to a code for ground cover and # corresponds to a code for soil depth (Fahrenheit or Celsius as per user preference)

Ground cover codes include the following:

- 0 = unknown
- 1 = grass
- 2 = fallow
- 3 = bare ground
- 4 = brome grass
- 5 = sod
- 6 = straw mulch
- 7 = grass muck
- 8 = bare muck

Depth codes include the following:

- 1 = 5 cm
- 2 = 10 cm
- 3 = 20 cm
- 4 = 50 cm
- 5 = 100 cm
- 6 = 150 cm
- 7 = 180 cm

SX\*# = Maximum soil temperature where \* corresponds to a code for ground

cover and # corresponds to a code for soil depth. See SN\*# for depth codes. (Fahrenheit or Celsius as per user preference)

THIC = Thickness of ice on water (inches or mm as per user preference)

TOBS = Temperature at the time of observation (Fahrenheit or Celsius as per user preference)

TSUN = Daily total sunshine (minutes)

WDF1 = Direction of fastest 1-minute wind (degrees)

WDF2 = Direction of fastest 2-minute wind (degrees)

WDF5 = Direction of fastest 5-second wind (degrees)

WDFG = Direction of peak wind gust (degrees)

WDFI = Direction of highest instantaneous wind (degrees)

WDFM = Fastest mile wind direction (degrees)

WDMV = 24-hour wind movement (km or miles as per user preference, miles on Daily Form pdf file)

WESD = Water equivalent of snow on the ground (inches or mm as per user preference)

WESF = Water equivalent of snowfall (inches or mm as per user preference)

WSF1 = Fastest 1-minute wind speed (miles per hour or meters per second as per user preference)

WSF2 = Fastest 2-minute wind speed (miles per hour or meters per second as per user preference)

WSF5 = Fastest 5-second wind speed (miles per hour or meters per second as per user preference)

WSFG = Peak guest wind speed (miles per hour or meters per second as per user preference)

WSFI = Highest instantaneous wind speed (miles per hour or meters per second as per user preference)

WSFM = Fastest mile wind speed (miles per hour or meters per second as per user preference)

WT\*\* = Weather Type where \*\* has one of the following values:

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 02 = Heavy fog or heaving freezing fog (not always distinguished from fog)
- 03 = Thunder
- 04 = Ice pellets, sleet, snow pellets, or small hail
- 05 = Hail (may include small hail)
- 06 = Glaze or rime
- 07 = Dust, volcanic ash, blowing dust, blowing sand, or blowing obstruction
- 08 = Smoke or haze
- 09 = Blowing or drifting snow
- 10 = Tornado, waterspout, or funnel cloud
- 11 = High or damaging winds
- 12 = Blowing spray
- 13 = Mist
- 14 = Drizzle
- 15 = Freezing drizzle
- 16 = Rain (may include freezing rain, drizzle, and freezing drizzle)
- 17 = Freezing rain
- 18 = Snow, snow pellets, snow grains, or ice crystals
- 19 = Unknown source of precipitation
- 21 = Ground fog
- 22 = Ice fog or freezing fog

WVxx = Weather in the Vicinity where “xx” has one of the following values

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 03 = Thunder
- 07 = Ash, dust, sand, or other blowing obstruction
- 18 = Snow or ice crystals
- 20 = Rain or snow shower

Additional details are available online at <http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/readme.txt> (note the readme file does not apply to the Daily Form pdf file or CSV outputs, however values are the same, other than a few differences in units noted in table 4 above).